IN THE CLAIMS

Please amend claims as follows:

1-21. (Cancelled)

22. (New) A method of mining association itemsets, the method comprising using a computer to perform the steps of:

providing a first itemset containing two first items, and having a first weighted frequency exceeding or equaling to a first weighted min_supp value, the first weighted frequency and the first weighted min_supp value having been calculated for a prior partition comprising a plurality of prior transactions;

calculating a second weighted frequency of the first itemset for both the prior partition and a current partition by increasing the first weighted frequency, the current partition comprising all of a plurality of current transactions established later than all the prior transactions of the prior partition;

calculating a second weighted min_supp value for both the prior and current partitions by increasing the first weighted min_supp value; and

storing the first itemset in a result for a subsequent partition later than the current partition when determining that the second weighted frequency exceeds the second weighted min_supp value.

23. (New) The method as claimed in claim 22, wherein the first weighted frequency is calculated by an equation:

$X_2.count(P1) = N_{P1}(X_2) * W(P1)$,

where P1 represents the prior partition, $N_{P1}(X_2)$ represents a occurrence of the first itmeset in the prior partition, and W(P1) is a first weighted value.

24. (New) The method as claimed in claim 23, wherein the second weighted frequency is calculated by an equation,

$X_2.count(P1\&P2) = X_2.count(P1)+N_{P2}(X_2)*W(P2)$,

P2 represents the current partition, $X_2.count(P1)$ represents the first weighted frequency, $N_{P2}(X_2)$ represents a occurrence of the first itmeset in the current partition, and W(P2) represents a second weighted value.

25. (New) The method as claimed in claim 24, wherein the first weighted value is greater than the second weighted value.

26. (New) The method as claimed in claim 22, wherein the first weighted min_supp value is calculated by an equation,

$min\_supp(P1) = min\_supp * N(P1) * W(P1)$,

P1 represents the prior partition, min_supp represents a min_supp value, N(P1) represents a sum of the prior transactions of the prior partition, and W(P1) represents the first weighted value.

27. (New) The method as claimed in claim 26, wherein the second weighted min_supp value is calculated by an equation,

$min\_supp(P1\&P2) = min\_supp(P1)+min\_supp*N(P2)*W(P2)$,

P2 represents the current partition, min_supp(P1) represents the first weighted min_supp value, N(P2)

represents a sum of the current transactions of the current partition, and W(P2) represents the second weighted value.

28. (New) The method as claimed in claim 27 wherein the first weighted value is greater than the second weighted value.

29. (New) The method as claimed in claim 22 further comprising:

providing a second itemset containing two second items;

calculating a third weighted frequency by multiplying a occurrence of the second itemset in the current partition by a weighted value;

calculating a third weighted min_supp value by multiplying a sum of transactions in the current partition by the weighted value; and

storing the second itemset in the result for the subsequent partition when determining that the third weighted frequency exceeds the third weighted min_supp value,

wherein the second itemset is not detected in the prior partition, or a third weighted frequency of the second itemset does not exceed or equal the first weighted min_supp value.

30. (New) The method as claimed in claim 22 further comprising storing the second weighted value of the first itemset, and the second min_supp value of the first itemset.

31. (New) A system of mining association itemsets, comprising:

a database providing a first itemset containing two first items, and having a first weighted frequency exceeding or equaling to a first weighted min_supp value, the first weighted frequency and the first weighted min_supp value been calculated for a prior partition comprising a plurality of prior transaction records; and

an association analysis unit calculating a second weighted frequency of the first itemset for both the prior partition and a current partition by increasing the first weighted frequency, calculating a second weighted min_supp value for both the prior and current partitions by increasing the first weighted min_supp value, and storing the first itemset in a result for a subsequent partition later than the current partition when determining that the second weighted frequency exceeds the second weighted min_supp value,

wherein the current partition comprising all of a plurality of current transaction records is established later than all the prior transactions of the prior partition, the first weighted frequency and the first weighted min_supp value are calculated for a prior partition.

32. (New) The system as claimed in claim 31, wherein the association analysis unit calculates the first weighted frequency by an equation:

$X_2.\text{count}(P1) = N_{P1}(X_2) * W(P1)$,

P1 represents the prior partition, $N_{P1}(X_2)$ represents a occurrence of the first itemset in the prior partition, and W(P1) is a first weighted value.

33. (New) The system as claimed in claim 32, wherein the association analysis unit calculates the second weighted frequency by an equation,

$X_2.count(P1\&P2) = X_2.count(P1)+N_{P2}(X_2)*W(P2)$,

P2 represents the current partition, $X_2.count(P1)$ represents the first weighted frequency, $N_{P2}(X_2)$ represents a occurrence of the first itemset in the current partition, and W(P2) represents a second weighted value.

34. (New) The system as claimed in claim 33, wherein the first weighted value is greater than the second weighted value.

35. (New) The system as claimed in claim 31, wherein the association analysis unit calculates first weighted min_supp value by an equation,

min_supp(P1) = min_supp * N(P1) * W(P1),

P1 represents the prior partition, min_supp represents a min_supp value, N(P1) represents a sum of the prior transactions of the prior partition, and W(P1) represents the first weighted value.

36. (New) The system as claimed in claim 35, wherein the association analysis unit calculates the second weighted min_supp value by an equation,

min_supp(P1&P2) = min_supp(P1)+min_supp*N(P2)*W(P2),

P2 represents the current partition, min_supp(P1) represents the first weighted min_supp value, N(P2)

represents a sum of the current transactions of the current partition, and W(P2) represents the second weighted value.

37. (New) The system as claimed in claim 36, wherein the first weighted value is greater than the second weighted value.

38. (New) The system as claimed in claim 31, wherein the database provides a second itemset containing two second items, the association analysis unit calculates a third weighted frequency by multiplying a occurrence of the second itemset in the current partition by a weighted value, calculates a third weighted min_supp value by multiplying a sum of transactions in the current partition by the weighted value, and stores the second itemset in the result for the subsequent partition when determining that the third weighted frequency exceeds the third weighted min_supp value, and the second itemset is not detected in the prior partition, or a third weighted frequency of the second itemset does not exceed or equal the first weighted min_supp value.

39. (New) The system as claimed in claim 31, wherein the association analysis unit stores the second weighted value of the first itemset, and the second min_supp value of the first itemset.